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U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

PRE-APPEAL BRIEF REQUEST FOR REVIEW

Docket Number (Optional): 1875.1100001

I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to "Mail Stop AF, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450" [37 CFR 1.8(a)]

on _____

Signature _____

Typed or printed name _____

Application Number	Filed
09/909,896	July 23, 2001

First Named Inventor: Oscar AGAZZI

Art Unit	Examiner
2616	Nguyen, Toan D.

Applicant requests review of the final rejection in the above-identified application. No amendments are being filed with this request.

This request is being filed with a notice of appeal.

The review is requested for the reason(s) stated on the attached sheet(s).
Note: No more than five (5) pages may be provided.

I am the

☐ applicant/inventor.

☐ assignee of record of the entire interest.
See 37 CFR 3.71. Statement under 37 CFR 3.73(b) is enclosed.
(Form PTO/SB/96)

☐ attorney or agent of record.
Registration number _____.

☒ attorney or agent acting under 37 CFR 1.34.
Registration number if acting under 37 CFR 1.34 60,724

Signature

James J. Pohl
Typed or printed name

(202) 371-2600
Telephone number

7/9/08
Date

NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required.
Submit multiple forms if more than one signature is required, see below*.

☒ *Total of 1 forms are submitted.

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:	Confirmation No.: 9207
AGAZZI *et al.*	Art Unit: 2616
Appl. No.: 09/909,896	Examiner: Nguyen, Toan D.
Filed: July 23, 2001	Atty. Docket: 1875.1100001
For: **Methods and Systems for Digitally Processing Optical Data Signals**	

Arguments to Accompany the Pre-Appeal Brief Request for Review

Mail Stop AF

Sir:

Applicants hereby submit the following Arguments, in five (5) or less total pages, as attachment to the Pre-Appeal Brief Request for Review Form (PTO/SB/33). A Notice of Appeal is concurrently filed.

Arguments

The Applicants' arguments in an Amendment and Reply under 37 C.F.R. §1.111 filed on January 22, 2008 (herein "Reply") in response to a Non-final Office Action mailed September 21, 2007 (herein "Non-final Office Action) were not properly considered, or responded to, in a Final Office Action mailed April 9, 2008 (herein "Final Office Action"). In the Final Office Action, claims 1-42, 52, 54, and 56 are rejected under 35 U.S.C. § 103(a) as being allegedly unpatentable over Azadet *et al.* (EP 1006697) in view of Winters *et al.* (Electrical Signal Processing Techniques in Long-Haul, Fiber-Optic Systems, AT&T Bell Laboratories), and further in view of Reznic (U.S. Pat. 6,842,458). Further, claims 43-51 are rejected under 35 U.S.C. § 103(a) as being allegedly unpatentable over Azadet in view of Winter and Reznic, and further in view of Bingham (Multicarrier Modulation for Data Transmission: An Idea Whose Time Has Come, IEEE Communication Magazine, May 1990). The Final Office Action's

response was legally and factually deficient because the Office Action failed to show that the teachings of Azadet, Winter, Reznic, and Bingham are sufficient to establish a *prima facie* case of obviousness of claims 1-52, 54, and 56.

1. The Obviousness Rejections of claims 1-42, 52, 54, and 56 under 35 U.S.C. § 103(a) are in Error and Must be Reversed

i. The Teachings of Azadet, Winter, and Reznic are Insufficient to Establish a* Prima Facie *Case of Obviousness because the Combination Fails to Teach, Suggest, or Disclose all Claimed Features

As discussed in the Applicants' Reply, filed January 22, 2008, the combined teachings of Azadet, Winter, and Reznic fail to establish a *prima facie* case of obviousness of claims 1-42, 52, 54, and 56 because they fail to teach all claimed features. In order to establish *prima facie* obviousness of a claimed invention using a combination of references, all claim limitations must be taught or suggested by the combination of cited references. *In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974). Further, "[a]ll words in a claim must be considered in judging the patentability of that claim against the prior art." *In re Wilson*, 424 F.2d 1382, 1385, 165 USPQ 494, 496 (CCPA 1970); *see also* M.P.E.P. § 2143A.

The feature of independent claim 1 reciting, "controlling ***N analog-to-digital converter*** ("ADC") paths with the N sampling signals to sample the electrical signal at the phases, to produce samples; [and] performing at least one ***M-path parallel digital process*** on the samples, ***wherein M is greater than N***" is a feature that distinguishes claim 1 over Azadet, Winter, and Reznic. (Emphasis added). Independent claims 9 and 18 recite similar distinguishing features.

On pages 5, 7, and 10, the Final Office Action admits that Azadet in view of Winters does not expressly disclose the claimed feature of M>N. Reznic does not

overcome these deficiencies. Specifically, Reznic does not teach, suggest, or disclose a relationship between the number of ADC paths (N) and the number of parallel digital process paths (M) where M>N, as is recited in claims 1, 9, and 18. In Reznic's FIG. 2, two codecs 212 ("N") feed each respective DSP 214 ("M"). Thus, in FIG. 2, the number of digital paths (e.g. DSP 214, "M") is ***less than*** the number of ADCs (e.g. codecs 212, "N"), so that Reznic actually discloses M<N, which teaches away from the Applicants' claimed invention having M>N.

Further, Reznic does not teach, suggest, or disclose M>N in column 2, lines 51-53 as asserted in the Response to Arguments on page 2 of the Final Office Action. The cited section of Reznic reads "[t]he outputs from **multiple ones of the codecs 212** are processed by **one** of multiple digital signal processors ("DSPs") 214 included in the EU unit 200." *See*, Reznic, col. 2, lns. 51-53 (emphasis added). Thus, the statement in Reznic that "*multiple ones* of the codecs 212" describes *N greater than or equal to two. Id.* (emphasis added). The cited section then goes on to state that "...are processed by *one* of multiple digital signal processors", which describes *M=1. Id.* (emphasis added). Thus, with this statement, Reznic actually discloses M<N, which also teaches away from the Applicants' claimed invention having M>N. Thus, Reznic does not overcome the deficiencies of Azadet in view of Winters. Again, this is clearly shown in FIG. 2, where **two** codecs 212 ("N") feed a **single** DSP 216 ("M"), so that N>M in Reznic. In contrast, the Applicants claim the opposite scenario, where M>N.

Further, in the Response to Arguments, the Final Office Action cites to page 11, paragraph [0063], lines 5-6 *of the Applicants' Specification* as clearly teaching that *Reznic* teaches, suggests, or discloses that kN=M. The cited passage of the Applicants'

Specification does not mention Reznic and thus does not support that *Reznic* teaches, suggests, or discloses that kN=M.

Therefore, the combination of Azadet, Winters, and Reznic does not teach each and every feature of independent claims 1, 9, and 18, and therefore does not meet the minimum requirements for establishing a *prima facie* case of obviousness. (*See*, M.P.E.P. § 2143A). Accordingly, the combination of Azadet, Winters, and Reznic also does not establish a *prima facie* case for respective dependent claims 2-8, 10-17, 19-42, 52, 54, and 56. Thus, the Final Office Action fails to overcome the Applicants' arguments in the previous Reply, and fails to establish a *prima facie* case of obviousness.

2. Rejections of claims 43-51 under 35 U.S.C. § 103(a)

a. The Obviousness Rejections of claims 43-51 are in Error and Must be Reversed

i. Claims 43-51 are Non-obvious by Being Dependent on Respective Non-Obvious Independent Claims

Claims 43-51 were rejected under 35 U.S.C. §103(a) as being allegedly unpatentable over Azadet in view of Winter and Reznic, and further in view of Bingham (Multicarrier Modulation for Data Transmission: An Idea Whose Time Has Come, IEEE Communication Magazine, May 1990).

All pending dependent claims, including claims 43-51, are allowable for depending from an allowable independent claim. In the case *In Re Fine*, six dependent claims depended from two non-obvious independent claims. 837 F.2d 1071, 1075 (Fed. Cir. 1988). The United States Court of Appeals for the Federal Circuit held that "[d]ependent claims are nonobvious under section 103 if the independent claims from which they depend are nonobvious." *Id.*; *See,* M.P.E.P. § 2143.03.

As shown above, all independent claims including independent claims 1, 9, and 18 are non-obvious. Dependent claims 43-51 depend upon their respective non-obvious independent claims 1, 9, and 18, and are allowable over the cited references for their dependency on an allowable base claim, in addition to their own patentable features. Further, the Final Office Action does not use Bingham to teach or suggest at least the distinguishing features discussed above with regard to independent claims 1, 9, and 18, nor does this reference remedy the deficiencies of Azadet, Winter, and Reznic stated herein. Accordingly, the Final Office Action fails to overcome the Applicants' arguments in the previous Reply and fails to establish a *prima facie* case of obviousness of claims 43-51.

Conclusion

The Applicants respectfully request that the rejections of claims 1-52, 54, and 56 as allegedly being unpatentable over Azadet, Winter, Reznic, and Bingham be reconsidered and withdrawn, and that all claims be passed to allowance. The U.S. Patent and Trademark Office is hereby authorized to charge any fee deficiency or credit any overpayment, to our Deposit Account No. 19-0036.

Respectfully submitted,

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